K Peter C Vollhardt

List of Publications by Year
in descending order

92 papers	4,447 citations	126907 33 h-index	106344 65 g-index
100 all docs	100 docs citations	100 times ranked	2694 citing authors

#	Article	IF	Citations
1	Inter- and Intramolecular [2+2+2] Cycloaddition of Alkyne Triple Bonds to the Carbonyl Function of Aldehydes and Ketones Enabled by Î·5-Cyclopentadienylcobalt(L)(Lâ€²). Synthesis, 2021, 53, 699-712.	2.3	1
2	The Trajectory of the (Î· 5-Cyclopentadienyl)cobalt-Mediated Cycloisomerization of Ene-Yne-Ene-Type Allyl Propargylic Ethers to Furans: A DFT Appraisal. Synthesis, 2021, 53, 4279-4289.	2.3	2
3	Stoichiometric and Catalytic (Î· 5-Cyclopentadienyl)cobalt-Mediated Cycloisomerizations of Ene-Yne-Ene Type Allyl Propargyl Ethers. Synthesis, 2020, 52, 399-416.	2.3	3
4	Oligoether-Substituted Derivatives of Carbon-Rich 1,4,7,10,13,16-Hexaethynyltribenzo[a,e,i]cyclododeca-5,11,17-triyne (C36H12) and 1,4,9,12-Tetrakis(ethynyl)dibenzo[a,g]cyclododeca-5,7,13,15-tetrayne (C28H8): Potential Precursors to the Circular [6]Phenylene (â€˜Antikekuleneâ€™) Frame. Synthesis, 2020, 52, 1287-1300.	2.3	3
5	The Quest for Double Vicinal Câ€“H Bond Activation on the (Î· 5:Î· 5-Fulvalene)diiridium Platform: Syntheses and Structures of (Î· 5:Î· 5-Fulvalene)Ir2(ortho-Î¼-C6H4)(CO)2 (Irâ€“Ir) and Related Complexes. Synthesis, 2019, 51, 2409-2429.	2.3	2
6	Site-selective reversible Dielsâ€“Alder reaction between a biphenylene-based polyarene and a semiconductor surface. Physical Chemistry Chemical Physics, 2018, 20, 11037-11046.	2.8	11
7	Cobalt-Mediated [2+2+2] Cycloadditions of Alkynes to BenzoÂ-[b]furans and Benzo[b]thiophenes: A Potential Route toward Morphanoids. Synthesis, 2018, 50, 1053-1089.	2.3	10
8	Imaging structural transitions in organometallic molecules on Ag(100) for solar thermal energy storage. Journal of the Korean Physical Society, 2017, 70, 586-590.	0.7	1
9	Cobalt-Mediated Reactions of Oxazoles and Thiazoles with Alkynes. Synthesis, 2015, 47, 3412-3422.	2.3	5
10	(Î·6-[7]Heliphene)tricarbonylchromium via an Optimized Preparation of [7]Heliphene. Synthesis, 2015, 47, 2038-2054.	2.3	7
11	Toward Antikekulene: Angular 1,2-Di-, 2,3-Di-, and 1,2,15,16-Tetrachloro[6]phenylene. Synlett, 2014, 25, 2429-2433.	1.8	12
12	Nitroalkynes: A Unique Class of Energetic Materials. Synthesis, 2014, 46, 2383-2412.	2.3	10
13	Phenylated Benzotetraphenes (Dibenzanthracenes) by Nickel-Catalyzed Diphenylacetylene Cycloadditions to Linear [3]Phenylenes. Synthesis, 2013, 45, 2469-2473.	2.3	5
14	Molecular solar thermal (MOST) energy storage and release system. Energy and Environmental Science, 2012, 5, 8534.	30.8	171
15	Alkynylboronates and â€boramides in Co^Iâ€•and Rh^Iâ€Catalyzed [2+2+2] Cycloadditions: Construction of Oligoaryls through Selective Suzuki Couplings. European Journal of Organic Chemistry, 2011, 2011, 3283-3292.	2.4	48
16	Photoinduced N2 loss as a route to long-lived organometallic alkane complexes: A time-resolved IR and NMR study. Chemical Science, 2010, 1, 622.	7.4	44
17	Cobalt-Mediated [2+2+2] Cycloaddition versus Cï£¿H and Nï£¿H Activation of Pyridones and Pyrazinones with Alkynes: An Experimental Study. Chemistry - A European Journal, 2007, 13, 7443-7465.	3.3	50
18	[N]Phenylenes: a Novel Class of Cyclohexatrienoid Hydrocarbon. , 2006, , 140-197.		37

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19	Anatomy of a Cyclohexatriene: Chemical Dissection of theÏ€ andÏƒ Frame of Angular[3]Phenylene. Angewandte Chemie - International Edition, 2004, 43, 3711-3715.	13.8	35
20	Tris(benzocyclobutadieno)triphenylene and Its Lower Biphenylene Homologues by Palladium-Catalyzed Cyclizations of 2,3-Didehydrobiphenylene. Organic Letters, 2004, 6, 3557-3560.	4.6	48
21	Total Syntheses of Angular [7]-, [8]-, and [9]Phenylene by Triple Cobalt-Catalyzed Cycloisomerization: Remarkably Flexible Heliphenes. Angewandte Chemie - International Edition, 2002, 41, 3227-3230.	13.8	113
22	The Formal Total Synthesis of (Â±)-Strychnine via a Cobalt-Mediated [2 + 2 + 2]Cycloaddition. Organic Letters, 2000, 2, 2479-2481.	4.6	89
23	The Heat of Hydrogenation of (a) Cyclohexatriene. Journal of the American Chemical Society, 2000, 122, 7819-7820.	13.7	54
24	On the Nature of Nonplanarity in the [N]Phenylenes. Chemistry - A European Journal, 1999, 5, 3399-3412.	3.3	400
25	Cobalt-Mediated [2+2+2] Cycloadditions of Pyrimidine Derivatives to Alkynes. Chemistry - A European Journal, 1999, 5, 3549-3561.	3.3	39
26	A Novel Phenylene Topology: Total Syntheses of Zigzag [4]- and [5]Phenylene. Angewandte Chemie - International Edition, 1999, 38, 800-804.	13.8	45
27	On the Nature of Nonplanarity in the [N]Phenylenes. , 1999, 5, 3399.		3
28	On the Nature of Nonplanarity in the [N]Phenylenes. , 1999, 5, 3399.		11
29	A Novel Phenylene Topology: Total Syntheses of Zigzag [4]- and [5]Phenylene. Angewandte Chemie - International Edition, 1999, 38, 800-804.	13.8	1
30	5,6,11,12,17,18â€Hexadehydroâ€1,4,7,10,13,16â€hexaethinyltribenzo[a,e,i]cyclododecen: Synthese und CpCoâ€katalysierte Cycloisomerisierung zu den ersten superdelokalisierten Oligophenylenen. Angewandte Chemie, 1997, 109, 2194-2199.	2.0	19
31	Metallierte Tetraâ€•und Penta(cyclopentadienyl)â€cyclopentadienyle: Synthese durch Pdâ€katalysierte Mehrfachâ€Cyclopentadienylierung. Angewandte Chemie, 1996, 108, 1100-1102.	2.0	10
32	Neue Derivate von Tris(benzocyclobutadieno)â€cyclohexatrien: durch Triscyclopropanierung und Trisepoxidierung zu den ersten [2.1.2.1.2.1]Hexaannulanen. Angewandte Chemie, 1995, 107, 601-603.	2.0	11
33	C₃â€symmetrisches Hexakis(trimethylsilyl)[7]â€phenylen [â€œTris(biphenylenocyclobutadieno)â€cyclohexatrienâ€] â€“ ein polycyclischer, benzoider Kohlenwasserstoff mit leicht gekrÃ¼mmter Struktur. Angewandte Chemie, 1995, 107, 1630-1633.	2.0	21
34	Novel Structures from Tris(benzocyclobutadieno)cyclohexatriene: Triscyclopropanation and Trisoxacyclopropanation to the First[2.1.2.1.2.1]Hexaannulanes. Angewandte Chemie International Edition in English, 1995, 34, 563-565.	4.4	35
35	C3-Symmetric Hexakis(trimethylsilyl)[7]phenylene[â€œTris(biphenylenocyclobutadieno)cyclohexatrieneâ€], a Polycyclic Benzenoid Hydrocarbon with Slightly Curved Topology. Angewandte Chemie International Edition in English, 1995, 34, 1478-1481.	4.4	61
36	The Effect of Fusion of Angular Strained Rings on Benzene: Crystal Structures of 1,2-Dihydrocyclobuta[a]cyclopropa[c]-, 1,2,3,4-Tetrahydrodicyclobuta[a,c]-, 1,2,3,4-Tetrahydrodicyclobuta[a,c]cyclopropa[e]-, and 1,2,3,4,5,6-Hexahydrotricyclobuta[a,c,e]benzene. Angewandte Chemie International Edition in English, 1994, 33, 313-317.	4.4	87

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37	Electron-Reservoir Complexes[FeICp(arene)] as Selective Initiators for a Novel Electron Transfer Chain Catalyzed Reaction: General Synthesis of Fulvalene-Bridged Homo- and Heterodinuclear Zwitterions. Angewandte Chemie International Edition in English, 1994, 33, 661-663.	4.4	33
38	Der Effekt angular anellierter, gespannter Ringe auf Benzol: Strukturen von 1,2â€Dihydrocyclobuta[a]cyclopropa[c]â€, 1,2,3,4â€Tetrahydrodicyclobuta[a,c]â€, 1,2,3,4â€Tetrahydrodicyclobuta[a,c]cyclopropa[e]â€•und 1,2,3,4,5,6â€Hexahydrotricyclobuta[a,c,e]benzol im Kristall. Angewandte Chemie, 1994, 106, 321-325.	2.0	40
39	Elektronenreservoirkomplexe [Fe_ICp(Aren)] als selektive Initiatoren fÃ¼r eine neue Elektrokatalysereaktion: Synthese fulvalenverbrÃ¼ckter homoâ€•und heterozweikerniger Zwitterionen,. Angewandte Chemie, 1994, 106, 715-717.	2.0	10
40	The total synthesis of angular [4]- and [5]phenylene. Journal of the American Chemical Society, 1992, 114, 9713-9715.	13.7	70
41	The First Hexabutadiynylbenzenes: Synthesis and Structures. Angewandte Chemie International Edition in English, 1992, 31, 1643-1645.	4.4	46
42	Tetraalkynylmethanes: Synthesis of Diethynyl-dipropargyl- and Tetrapropargylmethane. Angewandte Chemie International Edition in English, 1992, 31, 1648-1651.	4.4	18
43	Die ersten Hexabutadiinylbenzolderivate: Synthesen und Strukturen. Angewandte Chemie, 1992, 104, 1643-1645.	2.0	55
44	Tetraalkinylmethane: Synthese von Diethinyldipropargylâ€•und Terapropargylmethan. Angewandte Chemie, 1992, 104, 1645-1648.	2.0	9
45	Chemo- and Stereoselective Cobalt-Mediated[2+ 2+ 2]Cycloaddition of Alkynes with Uracil Derivatives. A Novel Synthetic Entry to Modified Nucleosides. Angewandte Chemie International Edition in English, 1991, 30, 993-994.	4.4	18
46	Unique Reactivity of Heterodinuclear Pentacarbonyl(fulvalene)molybdenumruthenium with Alkynes: Fluxionality, Rearrangements, Structures, and First Reversible Conversion of aâ€œSide-onâ€• to a Semi-Bridging Alkenylidene Ligand. Angewandte Chemie International Edition in English, 1991, 30, 1463-1465.	4.4	21
47	On the Way to Ligating Oligocyclopentadienyls: Synthesis and Preliminary Reactions of the Two Isomeric Tercyclopentadienyls and Their Transition Metal Complexes. Angewandte Chemie International Edition in English, 1990, 29, 549-552.	4.4	23
48	Facile Hydrogenation of the Central Cyclohexatriene of Tris(benzocyclobutadieno)benzene: Synthesis, Structure, and Thermal and Photochemical Isomerization of all-cis-Tris(benzocyclobuta)cyclohexane. Angewandte Chemie International Edition in English, 1990, 29, 1151-1154.	4.4	64
49	Auf dem Weg zu Oligocyclopentadienylâ€Liganden: Synthese und erste Reaktionen der beiden isomeren Tercyclopentadienyle und ihrer Ãœbergangsmetallkomplexe. Angewandte Chemie, 1990, 102, 589-592.	2.0	17
50	Leichte Hydrierung des zentralen Cyclohexatriens von Tris(benzocyclobutadieno)benzol: Synthese und Struktur sowie thermische und photochemische Isomerisierung von allâ€cisâ€Tris(benzocyclobuta)cyclohexan. Angewandte Chemie, 1990, 102, 1200-1202.	2.0	26
51	Struktur, Deformationselektronendichte, Photoelektronenspektrum und ReaktivitÃt von 3,4â€Dihydroâ€1Hâ€cyclobuta[a]cyclopropa[d]benzol. Angewandte Chemie, 1989, 101, 209-211.	2.0	11
52	Structure, Deformation Electron Densities, Photoelectron Spectra, and Reactivity of 3,4-Dihydro-1H-cyclobuta[a]cyclopropa[d]benzene. Angewandte Chemie International Edition in English, 1989, 28, 206-208.	4.4	29
53	Erstes Beispiel einer interanularen, mÃ¶glicherweise elektronisch Ã¼bertragenen asymmetrischen Induktion in einer Organometallverbindung. Angewandte Chemie, 1988, 100, 592-594.	2.0	4
54	First Case of Interannular, Possibly Electronically Transmitted, Asymmetric Induction in an Organometallic Compound. Angewandte Chemie International Edition in English, 1988, 27, 553-555.	4.4	18

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55	Cobalt-Mediated[2+ 2+ 2]Cycloadditions of Alkynes to the Imidazole 4,5-Double Bond. First Synthesis of the 3a, 7a-Dihydrobenzimidazole Nucleus and Its Preliminary Chemistry Including a Novel Quinoline Construction. Angewandte Chemie International Edition in English, 1987, 26, 1035-1037.	4.4	25
56	2,3,9,10-Tetrakis(trimethylsilyl)[5]phenylene. Synthesis via Regiospecific Cobalt-Catalyzed Cocyclization of 1,6-Bis(triisopropylsilyl)-l,3,5-hexatriyne. Angewandte Chemie International Edition in English, 1987, 26, 1246-1247.	4.4	54
57	2,3,9,10â€Tetrakis(trimethylsilyl)[5]phenylen durch regiospezifische cobaltkatalysierte Cocyclisierung von 1,6â€Bis(triisopropylsilyl)â€1,3,5â€hexatriin. Angewandte Chemie, 1987, 99, 1276-1277.	2.0	23
58	Photo-oxidation of 2,3,7,8-tetrakis(trimethylsilyl)benzo[3,4]cyclobuta[1,2-b]-biphenylene in the presence of oxygen: unusual cleavage of a benzene ring to generate an alkyne unit. Journal of the Chemical Society Chemical Communications, 1986, , 281.	2.0	8
59	Novel Synthesis of the Angular [3]Phenylene (Terphenylene) by Cobalt-Catalyzed Cyclization of Bis(2-ethynylphenyl)ethyne: a Molecule with an Internal Cyclohexatriene Ring. Angewandte Chemie International Edition in English, 1986, 25, 266-268.	4.4	104
60	Hexaethynylbenzene. Angewandte Chemie International Edition in English, 1986, 25, 268-269.	4.4	150
61	Formal Insertion of the HCO? Fragment into a Trinuclear Cluster Metal-Carbyne Bond: Synthesis, Structure and Reactivity of Cluster-bound Ethynol. Angewandte Chemie International Edition in English, 1986, 25, 929-931.	4.4	20
62	Formale Insertion des HCO^{âŠ•}â€Fragments in die Metallâ€Methylidinâ€Bindung eines dreikernigen Clusters: Synthese, Struktur und ReaktivitÄt von Clusterâ€gebundenem Ethinol. Angewandte Chemie, 1986, 98, 919-921.	2.0	10
63	Dinuclear tungsten and molybdenum complexes with fulvalene ligands: Assignment of their1H and13C NMR spectra by one-dimensional heteronuclear noe difference spectroscopy. Magnetic Resonance in Chemistry, 1986, 24, 709-712.	1.9	13
64	Synthesis of the First Linear (o-Phenyleno)naphthalenes; a New Class of Benzenoid Aromatics. Angewandte Chemie International Edition in English, 1985, 24, 114-115.	4.4	23
65	Synthese der ersten linearen (oâ€Phenylen)naphthaline; eine neue Klasse benzoider Arene. Angewandte Chemie, 1985, 97, 120-121.	2.0	9
66	A new approach to the construction of biphenylenes by the cobalt-catalyzed cocyclization of o-diethynylbenzenes with alkynes. Application to an iterative approach to [3]phenylene, the first member of a novel class of benzocyclobutadienoid hydrocarbons. Journal of the American Chemical Society, 1985, 107, 5670-5687.	13.7	175
67	Nickel-Catalyzed Reduction of Carbon Monoxide by Hexamethyldisilane: a New Reaction Leading to a Novel Synthesis of Siloxanes. Angewandte Chemie International Edition in English, 1984, 23, 460-461.	4.4	3
68	Cobalt-Mediated [2 + 2 + 2]-Cycloadditions: A Maturing Synthetic Strategy [New Synthetic Methods (43)]. Angewandte Chemie International Edition in English, 1984, 23, 539-556.	4.4	788
69	Nickelâ€Katalysierte Reduktion von Kohlenmonoxid mit Hexamethyldisilan: eine neuartige Synthese von Siloxanen. Angewandte Chemie, 1984, 96, 449-450.	2.0	2
70	The Structure and Reactivity of 2,3,7,8-Tetrakis(trimethylsilyl)terphenylene Novel Linear Multiphenylene. Angewandte Chemie International Edition in English, 1983, 22, 994-996.	4.4	6
71	An efficient synthesis of ethyne-1-13C. Journal of Labelled Compounds and Radiopharmaceuticals, 1983, 20, 257-267.	1.0	4
72	Struktur und ReaktivitÄt von 2,3,7,8â€Tetrakis(trimethylsilyl)terphenylen, einem neuen, linearen Multiphenylen. Angewandte Chemie, 1983, 95, 1001-1002.	2.0	10

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73	Deoxygenation of allylic carbinolamides and related alcohols by acidic sodium cyanoborohydride: Scope and limitations. Journal of Heterocyclic Chemistry, 1982, 19, 701-702.	2.6	12
74	Cyclopentadienone Complexes as Synthons: Ring- and Regiospecific Nucleophilic Additions to Cobaltocenium Salts?Synthesis of Substituted Cyclopentadienes and Cyclopentenones. Angewandte Chemie International Edition in English, 1982, 21, 617-618.	4.4	22
75	The Thermal Conversion of 1, 5, 9-Triynes into Arenes: [2 + 2 + 2]-Cycloadditions or Sigmatropic Rearrangements?. Angewandte Chemie International Edition in English, 1982, 21, 685-686.	4.4	5
76	Cyclopentadienone Complexes as Five Membered Ring Synthons: Ring- and Regiospecific Nucleophilic Additions to Cobaltocenium Salts and Elaboration to Substituted Cyclopentadienes and Cyclopentenones. Angewandte Chemie International Edition in English, 1982, 21, 1360-1372.	4.4	3
77	The Thermal Conversion of 1, 5, 9-Triynes to Aromatic Compounds: [2+2+2] Cycloadditions or Sigmatropic Rearrangements?. Angewandte Chemie International Edition in English, 1982, 21, 1545-1555.	4.4	3
78	Cyclopentadien-Komplexe als Synthesebausteine: Ring- und regiospezifische nucleophile Addition an Cobaltocenium-Salze - Synthese substituierter Cyclopentadiene und Cyclopentenone. Angewandte Chemie, 1982, 94, 642-643.	2.0	16
79	Thermische Umwandlung von 1,5,9â€Triinen in Arene â€" [2 + 2 + 2]â€Cycloaddition oder sigmatrope Umlagerung?. Angewandte Chemie, 1982, 94, 712-712.	2.0	9
80	Cobaltâ€vermittelte [2 + 2 + 2]â€Cycloadditionen: Stereospezifische intramolekulare Reaktionen von Endiinen zu Tricyclodienen mit angularen Methylgruppen. Angewandte Chemie, 1981, 93, 801-803.	2.0	7
81	Cobalt Mediated[2+ 2+ 2]-Cycloadditions: Stereospecific Intramolecular Reactions of Enediynes to Tricyclic Dienes Bearing Angular Methyl Groups. Angewandte Chemie International Edition in English, 1981, 20, 802-803.	4.4	32
82	Biscarbyne Cluster by Alkyne Cleavage: A General Reaction. Angewandte Chemie International Edition in English, 1980, 19, 559-561.	4.4	64
83	Cobalt Mediated[2+ 2+ 2]-Cycloadditions: A Simple Route to Substituted Cyclopentadienones. Angewandte Chemie International Edition in English, 1980, 19, 1023-1024.	4.4	77
84	Cyclobutadiene-Metal Complexes as Potential Intermediates in Alkyne Metathesis: Flash Vacuum Pyrolysis of Substituted ?4-Cyclobutadiene-?5-cyclopentadienyl-cobalt Complexes. Angewandte Chemie International Edition in English, 1979, 18, 409-411.	4.4	29
85	1,2,4,5-Tetrahydrodicyclobuta[b,e]pyridine. Angewandte Chemie International Edition in English, 1979, 18, 411-411.	4.4	2
86	Cyclobutadienâ€Metallâ€Komplexe als potentielle Zwischenstufen der Alkinâ€Metathese: Blitzthermolyse substituierter Î·⁴â€Cyclobutadienâ€(Î·⁵â€cyclopentadienyl)cobaltâ€Komplexe. Angewandte Chemie, 1979, 91, 439-440.	2.0	19
87	1, 2, 4, 5â€Tetrahydroâ€dicyclobuta[b, e]pyridin. Angewandte Chemie, 1979, 91, 440-441.	2.0	6
88	3,4-Bis(trimethylsilyl)benzocyclobuteneâ€"Synthesis by Acetylene Cotrimerization and Conversion into 1,2-Dihydrocyclobuta[c]benzyne. Angewandte Chemie International Edition in English, 1977, 16, 399-400.	4.4	10
89	A Cobalt-Catalyzed One-Step Synthesis of Annelated Pyridines. Angewandte Chemie International Edition in English, 1977, 16, 708-709.	4.4	95
90	Cobaltâ€katalysierte einstufige Synthese von anellierten Pyridinen. Angewandte Chemie, 1977, 89, 758-759.	2.0	47

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91	The consequences of ? and ? conjugative interactions in mono-, di- and triacetylenes. A photoelectron spectroscopic investigation. Helvetica Chimica Acta, 1975, 58, 2620-2645.	1.6	67
92	Bis(Î·5-cyclopentadienyl)[Î¼-(4b,5,5a-Î·3:9b,10,10a-Î·3)-2,3,7,8-tetrakis(trimethylsilyl)benzo[3,4]cyclobuta[1,2-b]biphenylene]-syn-dicob(Coâ€“Co), a Dinuclear ÐŸ-Complex of the Linear [3]Phenylene Frame. Synlett, 0, , .	1.8	6